

REMARKS

1. Introduction

In the Office Action mailed January 26, 2006, the Examiner rejected claims 2, 5, 19, and 20 under 35 U.S.C. § 103(a) as being unpatentable over Lee, U.S. Patent No. 6,385,435 (“Lee”) in view of Kim, U.S. Pub. No. 2001/0046215 (“Kim”) and further in view of Trompower et al., U.S. Patent No. 6,128,512 (“Trompower”).

The Examiner rejected claims 7-9 and 11-12 under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of Kim in view of Trompower and further in view of Leslie et al., U.S. Patent No. 6,404,775 (“Leslie”).

The Examiner rejected claims 3 and 6 under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of Kim and Trompower and further in view of Sabat, Jr. et al., U.S. Pub. No. 2002/0016170 (“Sabat”).

The Examiner rejected claims 10, 14, 17, 18 and 22 under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of Kim, Trompower, and Leslie and further in view of Sabat.

The Examiner rejected claim 13 under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of Kim, Trompower, and Leslie and further in view of what the Examiner alleged was well known in the art.

The Examiner rejected claim 21 under 35 U.S.C. § 103(a) as being unpatentable over Kin and Trompower and further in view of Sabat.

In this response, Applicants have amended claims 7, 11, 17, and 18. Claims 1, 4, 15, and 16 were previously canceled. Thus, claims 2, 3, 5, 6-14, and 17-22 are currently pending.

For the reasons set forth below, Applicants request reconsideration and allowance of the claims as amended.

2. Response to Claim Rejections

a. Claims 2, 3, 5, 6, 19-22

Of these claims, claims 19, 20, 21, and 22 are independent. The Examiner has rejected claims 19, 20, 21, and 22 under § 103 as being unpatentable over various combinations of references. In response, Applicants respectfully submit that the Examiner's rejections of these claims are improper and should be withdrawn because they are based on an erroneous inherency argument, as set forth below.

Each of these claims recites, in one way or another, the function of boosting a preferred pilot signal so that it dominates over a polluting pilot signal. Claims 19 and 21 recite, *inter alia*, amplifying a preferred pilot signal to provide a boosted pilot signal and transmitting the boosted pilot signal within the geographical area, "wherein the boosted pilot signal dominates over a polluting pilot signal within the geographical area." Claims 20 and 22 recite, *inter alia*, an amplifier that provides a boosted pilot signal, "wherein the strength of the boosted pilot signal is adjusted to dominate over a polluting pilot signal within the geographical area." In rejecting these claims, the Examiner alleged that the cited references inherently provide support for the boosted signal dominating a polluting pilot signal.

However, in order to show inherency, the Examiner has the burden of showing that the boosted pilot signals in the cited references *necessarily* dominate over a polluting pilot signal:

In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.

MPEP § 2112(IV) (emphasis original). Moreover, the mere possibility that the boosted pilot signals *may* dominate over a polluting pilot signal is insufficient to show inherency:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.

MPEP § 2112(IV) (emphasis original).

In this case, the Examiner has not met the Examiner's burden of showing that the boosted pilot signals in the cited references *necessarily* dominate over a polluting pilot signal. The Examiner has argued that "noise is inherent in a wireless system." However, noise is not *necessarily* from a polluting pilot signal. There are many sources of noise other than polluting pilot signals.

The Examiner also cited to paragraph 46 of Kim, arguing that "Kim's teaching of a repeater's installation being intended to increase strength of pilot signals so as to enable the mobile terminals to easily acquire in-building base stations." However, this statement also does not indicate that a polluting pilot signal is *necessarily* present. To the contrary, paragraph 46 of Kim refers to repeaters and antennas that are installed inside a *building*, a location where pilot signal pollution would not be expected to be a problem. Paragraph 46 of Kim simply indicates that the in-building repeaters and antennas provide good wireless coverage in the building, not that their signals dominate any polluting pilot signal. Because the Examiner has failed to show that the boosted pilot signals in the cited references *necessarily* dominate over a polluting pilot signal, the Examiner's inherency argument is unsupported and should be withdrawn.

Accordingly, Applicants submit that claims 19, 20, 21, and 22 are allowable over the prior art of record for at least the foregoing reasons. Applicants further submit that claims 2, 3, 5, 6 are allowable for at least the reasons that the claims are dependent on allowable claims.

b. Claims 7-14, 17, and 18

Of these claims, claims 7, 11, 17, and 18 are independent. The Examiner has rejected claims 7, 11, 17, and 18 under § 103(a) as being unpatentable over Lee in combination with other references. These claims are directed to methods and apparatus for forcing a hand-off within a cellular wireless system on crossing a boundary from a first geographical area to a second geographical area. The claims recite the functions of receiving a preferred pilot signal, boosting it, and transmitting the boosted pilot signal within the second geographical area. Moreover, each of these claims specify that the selected base station from which the preferred pilot signal is received also “provides wireless coverage in the second geographical area,” i.e., the geographical area in which the boosted pilot signal is transmitted. Thus, a pilot signal from a selected base station is boosted and transmitted into an area in which the selected base station *already provides* wireless coverage. This approach stands in sharp contrast to Lee’s approach of retransmitting a repeated signal into a “shadow zone,” i.e., an area in which base station transmissions are too weak to be used (col. 1, lines 15-24).

Nonetheless, the Examiner has taken the position that Lee’s disclosure of a repeater used to extend the coverage area of the base station into the shadow area reads on the claimed base station providing coverage in the second geographical area. *See* Office Action, p. 20. In response, Applicants have amended claims 7, 11, 17, and 18 to recite a “selected base station **antenna** that provides wireless coverage in the second geographical area.” This amendment further distinguishes claims 7, 11, 17, and 18 over Lee. To the extent that the base station in Lee provides coverage in the shadow area, it is through a repeater, not a base station antenna.

These amendments also render inapplicable the Examiner's rationale for modifying Lee in view of Kim, i.e., the rationale of increasing the coverage area of the base station. In claims 7, 11, 17, and 18, as amended, the pilot signal from the selected base station antenna is boosted and transmitted into an area in which the selected base station antenna already provides wireless coverage. Thus, the coverage area of the selected base station is *not* necessarily increased. Instead, the transmission "substantially only along a boundary between the first and second geographical areas" is done in order to force a hand-off within the cellular wireless system on crossing the boundary from the first geographical area to the second geographical area.

Accordingly, Applicants submit that claims 7, 11, 17, and 18 are allowable over the prior art of record for at least the foregoing reasons. Applicants further submit that claims 8-10 and 12-14 are allowable for at least the reason that the claims are dependent on allowable claims.

3. Conclusion

Applicant submits that the present application is in condition for allowance, and notice to that effect is hereby requested. Should the Examiner feel that further dialog would advance the subject application to issuance, the Examiner is invited to telephone the undersigned at any time at (312) 913-0001.

Respectfully submitted,

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